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## *Policies and Procedures*

**Title:** Dam Safety

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This Directive establishes SEA policy on Dam safety, duties and responsibilities of the SEA Dam Safety Officer, identifies research areas concerned with dam safety, and describes potentially hazardous structures which impound or divert water (referred to as dams) and gives qualified assistance contacts for meeting safety requirements.

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## **1. Abbreviation**

SCS - Soil Conservation Service

## **2. Policy**

To protect human life and property, SEA scientists and other responsible personnel will obtain qualified assistance from the State Government or SCS in the design, construction, and maintenance of potentially hazardous dams described below.

## **3. Authorities**

Public Law 92-367, House Resolution 15951, August 8, 1972. SCS National Engineering Manual Subchapter C, Part 520, subpart C, 520.21, Definitions and Classes.

## **4. Definition**

As used in this DIRECTIVE, a dam is an artificial barrier, with any associated spillways and appurtenant works, that does or may impound or divert water.

## **5. Duties and Responsibilities of The SEA Dam Safety Officer**

The SEA Dam Safety Officer will be appointed by the Director, Science and Education, to represent SEA on USDA's dam safety committee and:

- Will be responsible to see that new Federal standards and criteria are promulgated into SEA policy.
- Assist program units to interpret dam safety standards and regulations.
- Assist program units to obtain qualified assistance if necessary.

## **6. Program Areas Concerned**

SEA is involved in dam safety in two areas:

- Hydrology and hydraulic structures research.
- Temporary special-purpose structures such as measuring weirs and other water impoundments used to collect data in other research programs.

Most of the water impoundment structures used in research are small with no hazard potential.

The SEA units responsible for the construction, design, financing, or ownership of water impounding structures must also adhere to this DIRECTIVE.

## 7. Dam Classification

Dams are classified according to the potential hazard to life and property if the dam should suddenly breach or fail. Existing and future downstream development including controls for future development must be considered when classifying the dam. The classification of a dam is determined only by the potential hazard from failure.

**Class A** -- Dams in rural or agricultural areas where failure may damage farm buildings, agricultural land, or township and country roads.

**Class B** -- Dams in predominantly rural or agricultural areas where failure may damage isolated homes, main highways, minor railroads, or cause interruption in service of relatively important public utilities.

**Class C** -- Dams where failure may cause loss of life or serious damage to homes, industrial and commercial buildings, important public utilities, main highways, or railroads.

## 8. Potentially Hazardous Dams

The dams described below are considered potentially hazardous. Qualified assistance must be obtained to meet applicable design and construction requirements if any of the following criteria are met:

- Dams that meet or exceed height or storage capacity specified in State regulations,
- All Class B and C dams,
- Class A dams more than 6 feet high and with a storage capacity of 50 acre-feet or more; and
- Class A dams with a height of 25 feet or more and a storage capacity of more than 15 acre-feet.

NOTE: Height is the difference in elevation between the top of the dam and the lowest elevation at the downstream tolerance. Storage capacity is the capacity of the reservoir below the elevation

of the crest of the emergency spillway or the elevation of the top of the dam if there is no emergency spillway.

## **9. Obtaining Qualified Assistance**

If a proposed dam comes under I I above, the proposing scientist will seek assistance from the State Government to meet State and local requirements.

If a proposed dam comes under the bulleted paragraphs of Section 8 above, the proposing scientist will seek assistance from the SCS State Conservationist for the State where the dam will be located.

Anson R. Bertrand  
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